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ROBUST TECHNIQUES FOR OPTIMAL UPSTREAM COMMUNICATION
BETWEEN CABLE MODEM SUBSCRIBERS AND A HEADEND

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ABSTRACT

10 A number of features for enhancing the performance of a cable
transmission system in which data is transmitted between a cable
modem termination system at a headend and a plurality of cable
modems located different distances from the headend. The power
transmission level, slot timing, and equalization of the cable
modems are set by a ranging process. Data is transmitted by the
modems in fragmented form. Various measures are taken to make
transmission from the cable modems robust. The upstream data
15 transmission is controlled to permit multiple access from the cable
modems.

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